

What is claimed is:

1. An enterprise network comprising:
a plurality of local area networks;
at least one service delivery unit having a data port and a network interface
5 port;
the network interface port coupled to a wide area network;
the data port coupled to the plurality of local area networks; and
a policy server, communicatively coupled to the at least one service delivery
unit, the policy server including policies for bandwidth allocation stored on a
10 computer readable medium, such that the service delivery unit selectively allocates
bandwidth to users based on the policies stored in the policy server.
2. The enterprise network of claim 1, and further including a router coupled
between the data port and the plurality of local area networks.
- 15 3. The enterprise network of claim 1, wherein the data port is coupled to the
local area network over an Ethernet connection.
4. The enterprise network of claim 1, wherein the at least one service delivery
20 unit includes a cache that stores policies retrieved from the policy server.
5. The enterprise network of claim 1, wherein the policy server includes at least
two servers that are located at geographically different locations in the enterprise
network.
- 25 6. The enterprise network of claim 5, wherein service delivery units that are
located at geographically different locations from the at least two servers communicate
with one of the at least two servers over a permanent virtual connection in the wide
area network.

7. The enterprise network of claim 6, and wherein the permanent virtual connection comprises a secure connection.

8. The enterprise network of claim 1, wherein the at least one service delivery unit includes router functionality.

9. The enterprise network of claim 1, wherein the policies stored on the policy server include data that the at least one service delivery unit uses to prioritize access to bandwidth over the wide area network and to control the amount of bandwidth allocated for each request.

10. The enterprise network of claim 1, wherein the at least one service delivery unit uses service mapping in allocating bandwidth to a user based on the policies stored on the policy console.

11. A service delivery unit, comprising:
a network interface port coupleable to a wide area network;
a data port coupleable to a plurality of local area networks;
a policy server interface coupleable to a policy server that includes policies for bandwidth allocation stored on a computer readable medium; and
a central processing unit, communicatively coupled to the network interface port, the data port and the policy server interface, wherein the central processing unit executes instructions to selectively allocate bandwidth in the wide area network for users of the plurality of local area networks based on the policies stored in the policy server.

12. The service delivery unit of claim 11, wherein the central processing further executes instructions to perform router functions for the data port.

13. The service delivery unit of claim 11, and further comprising a cache for caching policies retrieved from the policy server.

14. The service delivery unit of claim 11, wherein the network port comprises an interface that is coupleable to communicate with the wide area network over a number of permanent virtual connections.

15. The service delivery unit of claim 11, wherein the central processing unit uses service mapping to allocate bandwidth.

16. An enterprise network comprising:

at least one local area network at a first geographic location;

at least one additional local area network at a second, different geographic location;

a first service delivery unit having a data port that is coupled to the at least one local area network and a network interface port that is coupled to a wide area network;

a second service delivery unit having a data port that is coupled to the at least one additional local area network and a network interface port that is coupled to the wide area network; and

a policy server, communicatively coupled to the first and second service delivery units, the policy server including policies for bandwidth allocation stored on a computer readable medium, such that the service delivery units selectively allocate bandwidth to users based on the policies stored in the policy server.

17. A method for providing bandwidth management in an enterprise network, the method comprising:

receiving a request for connection over a wide area network;

classifying the request;

identifying global policies that relate to the request; and
applying the identified policies to control the priority and amount of bandwidth
to allocate to the request over the wide area network.

5 18. The method of claim 17, wherein classifying the request comprises:
identifying the user by IP address; and
identifying the type of request.

10 19. The method of claim 17, wherein identifying policies comprises:
identifying policies in a cache of a service delivery unit; and
when applicable policies are not found in the cache, requesting additional
policies from a policy server.

15 20. The method of claim 19, wherein requesting additional policies from the policy
server comprises communicating with the policy server over a secure permanent
virtual connection.

20 21. The method of claim 17, wherein applying the identified policies comprises:
determining the amount and type of bandwidth requested;
determining the priority for the request;
determining whether sufficient bandwidth is available; and
when sufficient bandwidth is available, selectively assigning bandwidth to the
user based on the policies.